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BEFORE THE ARIZONA CORPORATION

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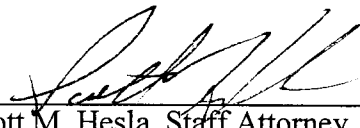
IN THE MATTER OF THE APPLICATION OF
RAY WATER COMPANY, INC. FOR A RATE
INCREASE.

DOCKET NO. W-01380A-12-0254

**STAFF'S NOTICE OF FILING
SURREBUTTAL TESTIMONY**

The Utilities Division ("Staff") of the Arizona Corporation Commission ("Commission") hereby provides notice of filing the Surrebuttal Testimony related to Cost of Capital of Staff witness John A. Cassidy in the above-referenced matter.

RESPECTFULLY SUBMITTED this 11th day of January, 2013.



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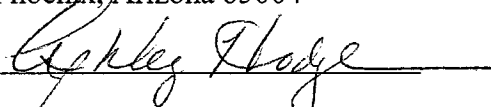
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Arizona Corporation Commission
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BEFORE THE ARIZONA CORPORATION COMMISSION

BOB STUMP
Chairman
GARY PIERCE
Commissioner
BRENDA BURNS
Commissioner
BOB BURNS
Commissioner
SUSAN BITTER-SMITH
Commissioner

IN THE MATTER OF THE APPLICATION OF)	DOCKET NO. W-01380A-12-0254
RAY WATER COMPANY, INC. FOR)	
APPROVAL OF A PERMANENT RATE)	
INCREASE.)	
<hr/>		

SURREBUTTAL
TESTIMONY
OF
JOHN A. CASSIDY
PUBLIC UTILITIES ANALYST
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION

JANUARY 11, 2013

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**EXECUTIVE SUMMARY
RAY WATER COMPANY
DOCKET NO. W-01380A-12-0254**

The Surrebuttal testimony of Staff witness John A. Cassidy addresses the following issues:

Capital Structure – Staff recommends that the Commission adopt a capital structure for Ray Water Company (“RWC” or “Company”) for this proceeding consisting of 7.6 percent debt and 92.4 percent equity.

Cost of Equity – Staff recommends that the Commission adopt a 9.3 percent return on equity (“ROE”) for the Company. Staff’s estimated ROE for the Company is based on an economic assessment and the results of its DCF and CAPM cost of equity methodology estimates for the sample companies of 8.8 percent for the capital asset pricing model (“CAPM”) and 8.5 percent for the discounted cash flow method (“DCF”).

Cost of Debt – Staff recommends that the Commission adopt a 6.3 percent cost of debt for the Company.

Overall Rate of Return – Staff recommends that the Commission adopt a 9.1 percent overall rate of return.

Mr. Rowell’s Testimony – The Commission should reject the Company’s proposed 10.9 percent ROE for the following reasons:

Mr. Rowell agreed that the 9.5 percent ROE that Staff recommended in Mr. Cassidy’s Direct testimony was, on the whole, reasonable and acceptable to the Company so long as it provides an opportunity for the Company to earn the authorized return. The Company asserts that Staff recommendations for rate design, rent expense, maintenance expense, property tax expense best management practices and Well No. 8, if adopted, would render its opportunity to earn the authorized return illusory. The authorized ROE should provide the Company the opportunity to earn the authorized ROE under efficient operation which should exclude recovery of unnecessary expenses and capital improvements.

I. INTRODUCTION

Q. Please state your name, occupation, and business address.

A. My name is John A. Cassidy. I am a Public Utilities Analyst employed by the Arizona Corporation Commission ("Commission") in the Utilities Division ("Staff"). My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. Are you the same John A. Cassidy who filed Direct testimony in this case?

A. Yes, I am.

Q. What is the purpose of your Surrebuttal testimony in this rate proceeding?

A. The purpose of my Surrebuttal testimony is to report on Staff's updated cost of capital analysis with its recommendations regarding Ray Water Company's ("RWC" or "Company") cost of capital, and to respond to the cost of capital Rebuttal Testimony of Company witness, Matthew J. Rowell ("Mr. Rowell's Rebuttal").

Q. Please explain how Staff's surrebuttal testimony is organized.

A. Staff's Surrebuttal testimony is presented in four sections. Section I is this introduction. Section II discusses Staff's updated cost of capital analysis. Section III presents Staff's comments on the Rebuttal Testimony of the Company's cost of capital witness, Mr. Rowell. Lastly, Section IV presents Staff's recommendations.

Q. Before proceeding, would you care to make any corrections to your Direct testimony?

A. Yes, there are several corrections to be made to my pre-filed Direct testimony. First, in the Executive Summary, Staff's recommended capital structure is shown to consist of "92.4 percent debt and 7.6 percent equity;" corrected, these values should read, "7.6

1 percent debt and 92.4 percent equity.” Second, on page 37, line 7, the word/sentence,
2 “No.” should be changed to, “Yes.” Third, in Schedule JAC-3, there are two corrections:
3 (i) Staff’s Economic Assessment Adjustment is shown as “0.5%,” and should be changed
4 to, “0.6%,” and (ii) Staff’s Total (and Sub-Total) cost of equity is shown as, “9.4%,” and
5 should be changed to, “9.5%.” Finally, there are three corrections to Schedule JAC-1: (i)
6 Staff’s recommended cost of common equity should be changed from, “9.4%” to “9.5%,”
7 Staff’s weighted cost of common equity should be changed from “8.7%” to “8.8%,” and
8 Staff’s weighted average cost of capital should be changed from, “9.2%” to “9.3%.”
9

10 **II. COST OF EQUITY AND OVERALL RATE OF RETURN**

11 **Q. Is Staff recommending a different capital structure for RWC in its Surrebuttal**
12 **testimony than it did in Direct testimony?**

13 A. No. Despite arguments made by Mr. Rowell in Rebuttal testimony that the debt
14 component of RWC’s capital structure should be removed due to Staff’s excess capacity
15 determination for Well No. 8, Staff made no adjustment to the Company’s capital
16 structure. As noted in Staff’s Direct testimony, RWC’s existing debt was authorized by
17 the Commission in Decision No. 71691 (dated May 3, 2010), and as contemplated in the
18 Company’s financing application,¹ the debt proceeds were to be used to fund the drilling
19 and construction of a new well. At the time, Staff recommended that authorization for the
20 loan be denied the Company, due to concerns that this additional plant – Well No. 8 – was
21 not needed. Nevertheless, the Company was granted authorization for the loan, and in the
22 present docket Staff has determined that Well No. 8 represents excess capacity to RWC’s
23 system. While it is true that the debt component in RWC’s capital structure came into
24 existence as a consequence of the Company’s commitment to proceed with the drilling
25 and construction of Well No. 8, that fact does not serve to justify the removal of those debt

¹ Docket No. W-01380A-09-0106.

1 proceeds from RWC's capital structure for rate-making purposes. Due to the fungible
2 nature of money, regardless of the sequence in which capital is attained and assets are
3 acquired, each of RWC's assets is funded by a pool of funds represented by both debt and
4 equity. No source of funds can be directly attributed to any single asset as suggested by
5 Mr. Rowell. That is, a dollar spent for one purpose cannot be differentiated from a dollar
6 spent for another.

7
8 **Q. Does the Surrebuttal testimony filed by Staff witness Crystal Brown reflect Staff**
9 **surrebuttal cost of capital recommendations?**

10 A. No. Staff's surrebuttal cost of capital analysis was not available at the time Ms. Brown's
11 Surrebuttal testimony was prepared. Staff will be updating its revenue requirement
12 schedules to reflect the appropriate cost of capital.

13
14 **Q. Has Staff updated its analysis concerning the Company's cost of equity ("COE")**
15 **since filing Direct testimony in this proceeding?**

16 A. Yes. Staff updated its analysis to include the most recent market data available.

17
18 **Q. Prior to consideration of an economic assessment adjustment, what is Staff's updated**
19 **estimate for the COE?**

20 A. Prior to consideration of an economic assessment adjustment, Staff's updated estimate for
21 the COE is 8.7 percent. This figure was derived from cost of equity estimates which range
22 from 8.8 percent for the discounted cash flow ("DCF") method to 8.5 percent for the
23 capital asset pricing model ("CAPM") estimation methodologies, as shown in Surrebuttal
24 Schedule JAC-3. In Direct testimony, Staff's preliminary COE estimate had been 8.9
25 percent.

1 **Q. In its Surrebuttal testimony, does Staff recommend that an upward economic**
2 **assessment adjustment be made to RWC's cost of equity?**

3 A. Yes. Staff is recommending a 60 basis point (0.6 percent) upward economic assessment
4 adjustment to RWC's COE, which is the same economic assessment adjustment, corrected
5 as noted above, made in Staff's Direct testimony.

6
7 **Q. What COE is Staff recommending for RWC?**

8 A. Staff is recommending a COE of 9.3 percent. This figure represents Staff's updated 8.7
9 percent COE, derived from updated cost of equity estimates ranging from 8.8 percent for
10 the discounted cash flow ("DCF") method to 8.5 percent for the capital asset pricing
11 model ("CAPM") estimation methodologies, and includes Staff's 60 basis point economic
12 assessment adjustment.

13
14 **Q. Did Staff update its analysis concerning the Company's overall rate of return?**

15 A. Yes, the updated analysis is supported by Surrebuttal Schedules JAC-1 to JAC-9.

16
17 **Q. What is Staff's updated overall rate of return?**

18 A. Staff's updated overall rate of return is 9.1 percent, a decrease from 9.3 percent, corrected
19 as noted above, in Staff's Direct testimony.

20
21 **Q. What overall rate of return is Staff recommending for RWC?**

22 A. Staff recommends a 9.1 percent overall rate of return. Staff's recommendation is based on
23 a COE of 9.3 percent, a cost of debt of 6.3 percent and a capital structure consisting of 7.6
24 percent debt and 92.4 percent equity, as shown in Surrebuttal Schedule JAC-1.

III. STAFF RESPONSE TO COMPANY'S COST OF CAPITAL WITNESS MR. MATTHEW J. ROWELL

Q. What capital structure does Mr. Rowell recommend for the Company in his Rebuttal Testimony?

A. For ratemaking purposes, Mr. Rowell's position concerning RWC's capital structure appears to be dependent upon Staff's treatment of Well No. 8. To the extent Staff includes Well No. 8 in rate base, he has no objection to the inclusion of RWC's debt in the capital structure. However, should Staff continue to exclude Well No. 8 from rate base on grounds that it represents excess capacity, Mr. Rowell is adamant that the debt component must be removed from the capital structure, on grounds that the debt proceeds were used to finance construction of Well No. 8.

Q. When filing direct testimony, Staff recommended a capital structure consisting of 7.6 percent debt, while the Company had proposed a capital structure consisting of 7.4 percent debt. In his Rebuttal Testimony, did Mr. Rowell address this issue?

A. Yes. Although he did not fully agree with Staff's recommended capital structure due to differences in the debt component, Mr. Rowell acknowledged that the difference was immaterial, and thus agreed to accept Staff's recommended capital structure, subject to the caveat noted above regarding the treatment of Well No. 8.

Q. In his Rebuttal Testimony, did Mr. Rowell comment on Staff's recommended 9.5 percent COE for the Company?

A. Yes. Mr. Rowell states that he found Staff's 9.5 percent COE recommendation to be, "on the whole, reasonable." (see Rowell Rebuttal, p. 3, line 7).

1 **Q. Did Mr. Rowell indicate if the Company was willing to accept a 9.5 percent ROE in**
2 **this docket?**

3 A. Yes, Mr. Rowell indicated that RWC is “willing to agree to the 9.5% ROE” (See Rowell
4 Rebuttal, p.3, lines 23-24). However, he then goes on to characterize Staff’s
5 recommended 9.5 percent ROE as, “illusory,” asserting that “Staff’s other
6 recommendations² and adjustments deny the Company the opportunity to earn 9.5%”
7 (Rowell Direct, p.3, lines 25-27).
8

9 **Q. How does Staff respond to this assertion?**

10 A. Mr. Rowell’s characterization is unwarranted. Staff’s cost of capital analysis is market
11 based, and relies on estimates derived from both the DCF and CAPM models. Mr.
12 Rowell’s proposed 10.9 percent COE was derived, primarily, upon the results obtained
13 from his comparable earnings analysis, and as was demonstrated by Staff in its Direct
14 testimony, that analysis was flawed in a number of ways. First, Mr. Rowell’s weighted
15 average ROE methodology allowed his COE estimates to be disproportionately influenced
16 by the natural gas companies in his sample. Second, the selection of UGI Corporation as a
17 replacement for AGL Resources in his comparable earnings sample allowed that company
18 – one of 14 companies in the sample -- to account for almost 20 percent (19.73%) of his
19 comparable earnings estimate. Lastly, the overall influence of UGI Corporation upon Mr.
20 Rowell’s comparable earnings estimate was improperly inflated due to a failure to exclude
21 that portion of UGI earnings attributable to its non-regulated operations.
22

² Specifically, Staff’s recommendations for rate design, rent expense, maintenance expense, property tax expense best management practices and Well No. 8.

1 **Q. In its direct testimony, Staff reserved the right to conduct research on the other gas**
2 **companies in Mr. Rowell's comparable earnings sample to determine if they, like**
3 **UGI Corporation, may have had operational income derived from non-regulated**
4 **segments. Did Staff conduct such research for purposes of its Surrebuttal testimony?**

5 A. Yes.

6
7 **Q. What were the results of Staff's research in that regard?**

8 A. Staff conducted research on each of the seven natural gas companies included in Mr.
9 Rowell's comparable earnings sample to determine what portion, if any, of their 2011
10 fiscal year revenues were derived from non-regulated operations. With the exception of
11 one company (Piedmont Natural Gas), all derived a portion of their revenues from non-
12 regulated operations, and as shown in Surrebuttal Exhibit JAC-A, the overall average of
13 non-regulated revenues for all seven companies -- including Piedmont Natural Gas -- was
14 35.85 percent.

15
16 **Q. Based on the data shown in surrebuttal Exhibit JAC-A, what additional conclusions**
17 **can be drawn regarding Mr. Rowell's comparable earnings analysis?**

18 A. The data shown in surrebuttal Exhibit JAC-A is further evidence that Mr. Rowell's
19 comparable earnings estimate for the cost of capital has been overstated. Having utilized a
20 weighted average methodology for purposes of his comparable earnings analysis, Mr.
21 Rowell should have made an adjustment to remove that portion of the earnings attributable
22 to non-regulated operations for each company. His failure to do so results in an inflated
23 weight factor for each gas sample company having non-regulated operations.

24

1 **IV. STAFF RECOMMENDATIONS**

2 **Q. What are Staff's recommendations for RWC's cost of capital?**

3 A. Staff makes the following recommendations for RWC's cost of capital:

- 4 1. Staff recommends a capital structure of 7.6 percent debt and 92.4 percent equity.
- 5 2. Staff recommends a cost of debt of 6.3 percent.
- 6 3. Staff recommends a cost of equity of 9.3 percent.
- 7 4. Staff recommends an overall rate of return of 9.1 percent.

8

9 **Q. Does Staff's silence on any particular issue raised by the Company in its Rebuttal**
10 **testimony imply that Staff agrees with the stated Rebuttal position?**

11 A. No.

12

13 **Q. Does this conclude your Surrebuttal testimony?**

14 A. Yes, it does.

Ray Water Company Cost of Capital Calculation
Capital Structure
And Weighted Average Cost of Capital
Staff Recommended and Company Proposed

[A]	[B]	[C]	[D]
<u>Description</u>	<u>Weight (%)</u>	<u>Cost</u>	<u>Weighted Cost</u>
Staff Recommended Structure			
Debt	7.6%	6.3%	0.5%
Common Equity	92.4%	9.3%	<u>8.6%</u>
Weighted Average Cost of Capital			9.1%
Company Proposed Structure			
Debt	7.4%	6.3%	0.5%
Common Equity	92.6%	10.9%	<u>10.1%</u>
Weighted Average Cost of Capital			10.6%

[D] : [B] x [C]

Supporting Schedules: JAC-3 and JAC-4.

Ray Water Company Cost of Capital Calculation
Final Cost of Equity Estimates
Sample Water Utilities

[A]	[B]	[C]	[D]	[E]
DCF Method				
Constant Growth DCF Estimate		$\frac{D_1/P_0}{1}$	+	$\frac{g}{2}$
Multi-Stage DCF Estimate		3.2%	+	4.8%
Average DCF Estimate				=
				=
				=
				$\frac{8.0\%}{9.6\%}$
				$\frac{8.8\%}{8.8\%}$
CAPM Method				
Historical Market Risk Premium ³	R_f	+	β^5	\times
Current Market Risk Premium ⁴	1.3%	+	0.71	\times
Average CAPM Estimate	3.0%	+	0.71	\times
				\times
				10.9% ⁷
				=
				=
				=
				$\frac{6.3\%}{10.7\%}$
				$\frac{8.5\%}{8.5\%}$
Average of Overall Estimates				
Economic Assessment Adjustment				
Sub-Total				
Financial risk adjustment				
Total				
				$\frac{8.7\%}{0.6\%}$
				$\frac{9.3\%}{9.3\%}$
				$\frac{0.0\%}{0.0\%}$
				$\frac{9.3\%}{9.3\%}$

1 MSN Money and Value Line

2 Schedule JAC-8

3 Risk-free rate (Rf) for 5, 7, and 10 year Treasury rates from the U.S. Treasury Department at www.ustreas.gov

4 Risk-free rate (Rf) for 30 Year Treasury bond rate from the U.S. Treasury Department at www.ustreas.gov

5 Value Line

6 Historical Market Risk Premium (Rp) calculated from Ibbotson Associates S&P 500 2012 Yearbook data

7 Testimony

Ray Water Company Cost of Capital Calculation
Average Capital Structure of Sample Water Utilities

[A]	[B]	[C]	[D]
<u>Company</u>	<u>Debt</u>	<u>Common Equity</u>	<u>Total</u>
American States Water	46.0%	54.0%	100.0%
California Water	53.3%	46.7%	100.0%
Aqua America	53.9%	46.1%	100.0%
Connecticut Water	57.1%	42.9%	100.0%
Middlesex Water	43.3%	56.7%	100.0%
SJW Corp	<u>55.7%</u>	<u>44.3%</u>	<u>100.0%</u>
Average Sample Water Utilities	51.6%	48.4%	100.0%
Ray Water - Actual Capital Structure	7.6%	92.4%	100.0%

Source:

Sample Water Companies from Value Line

Ray Water Company Cost of Capital Calculation
Growth in Earnings and Dividends
Sample Water Utilities

[A]	[B]	[C]	[D]	[E]
Company	Dividends Per Share 2003 to 2012 <u>DPS^{1,2}</u>	Dividends Per Share Projected <u>DPS^{1,3}</u>	Earnings Per Share 2002 to 2011 <u>EPS¹</u>	Earnings Per Share Projected <u>EPS¹</u>
American States Water	3.9%	5.9%	5.1%	4.7%
California Water	1.2%	3.4%	6.2%	8.6%
Aqua America	7.7%	4.5%	7.3%	5.6%
Connecticut Water	1.7%	No Projection	0.4%	No Projection
Middlesex Water	1.7%	1.9%	2.4%	8.3%
SJW Corp	<u>4.4%</u>	<u>3.0%</u>	<u>3.7%</u>	<u>4.0%</u>
Average Sample Water Utilities	3.4%	3.8%	4.2%	6.2%

¹ Value Line

² Value Line -- Ten-year historical dividend growth updated from 2003-2012 as it is known and measureable.

³ Value Line -- Projected DPS growth covers the four-year period, 2012-2016.

Ray Water Company Cost of Capital Calculation
Sustainable Growth
Sample Water Utilities

[A]	[B]	[C]	[D]	[E]	[F]
<u>Company</u>	Retention Growth 2002 to 2011 <u>br</u>	Retention Growth Projected <u>br</u>	Stock Financing Growth <u>vs</u>	Sustainable Growth 2002 to 2011 <u>br + vs</u>	Sustainable Growth Projected <u>br + vs</u>
American States Water	3.6%	5.3%	2.4%	6.0%	7.7%
California Water	2.2%	4.8%	2.0%	4.2%	6.8%
Aqua America	4.4%	5.2%	2.2%	6.6%	7.4%
Connecticut Water	2.2%	No Projection	1.0%	3.2%	No Projection
Middlesex Water	1.3%	3.3%	3.6%	4.9%	6.9%
SJW Corp	<u>3.7%</u>	<u>2.9%</u>	<u>0.1%</u>	<u>3.8%</u>	<u>3.0%</u>
Average Sample Water Utilities	2.9%	4.3%	1.9%	4.8%	6.4%

[B]: Value Line

[C]: Value Line

[D]: Value Line and MSN Money

[E]: [B]+[D]

[F]: [C]+[D]

Ray Water Company Cost of Capital Calculation
Selected Financial Data of Sample Water Utilities

[A]	[B]	[C]	[D]	[E]	[F]	[G]
Company	Symbol	Spot Price 12/19/2012	Book Value	Mkt To Book	Value Line Beta	Raw Beta
American States Water	AWR	47.34	22.18	2.1	0.70	0.52
California Water	CWT	18.15	11.35	1.6	0.65	0.45
Aqua America	WTR	24.69	9.45	2.6	0.60	0.37
Connecticut Water	CTWS	30.26	13.64	2.2	0.75	0.60
Middlesex Water	MSEX	19.14	11.93	1.6	0.70	0.52
SJW Corp	SJW	25.50	15.30	1.7	0.85	0.75
Average				2.0	0.71	0.53

[C]: Msn Money

[D]: Value Line

[E]: [C] / [D]

[F]: Value Line

[G]: $(-0.35 + [F]) / 0.67$

Ray Water Company Cost of Capital Calculation
Calculation of Expected Infinite Annual Growth in Dividends
Sample Water Utilities

[A]	[B]
<u>Description</u>	<u>g</u>
DPS Growth - Historical ¹	3.4%
DPS Growth - Projected ¹	3.8%
EPS Growth - Historical ¹	4.2%
EPS Growth - Projected ¹	6.2%
Sustainable Growth - Historical ²	4.8%
<u>Sustainable Growth - Projected²</u>	<u>6.4%</u>
Average	4.8%

¹ Schedule JAC-5

² Schedule JAC-6

Ray Water Company Cost of Capital Calculation
Multi-Stage DCF Estimates
Sample Water Utilities

[A]	[B]	[C]	[D]	[E]	[F]	[H]	[I]
Company	Current Mkt. Price (P_o) ¹ 12/19/2012	Projected Dividends ² (Stage 1 growth) (D_t)				Stage 2 growth ³ (g_n)	Equity Cost Estimate (K) ⁴
American States Water	47.3	d_1	d_2	d_3	d_4	6.5%	9.1%
California Water	18.2	0.66	0.69	0.73	0.76	6.5%	10.0%
Aqua America	24.7	0.68	0.71	0.75	0.78	6.5%	9.1%
Connecticut Water	30.3	0.98	1.03	1.08	1.13	6.5%	9.6%
Middlesex Water	19.1	0.75	0.78	0.82	0.86	6.5%	10.3%
SJW Corp	25.5	0.74	0.78	0.82	0.86	6.5%	9.3%

Average **9.6%**

$$P_o = \sum_{t=1}^n \frac{D_t}{(1+K)^t} + \frac{D_n(1+g_n)}{K-g_n} \left[\frac{1}{(1+K)} \right]^n$$

Where : P_o = current stock price

D_t = dividends expected during stage 1

K = cost of equity

n = years of non – constant growth

D_n = dividend expected in year n

g_n = constant rate of growth expected after year n

¹ [B] see Schedule JAC-7

² Derived from Value Line Information

³ Average annual growth in GDP 1929 - 2011 in current dollars.

⁴ Internal Rate of Return of Projected Dividends

Regulated and Non-regulated Operating Revenues
of Mr. Rowell's Comparable Earnings
Natural Gas Sample Companies

		Operating Revenues -- Fiscal Year 2011		
Company	Ticker	Total Revenues (\$ 1,000s)	Nonregulated Revenues (\$ 1,000s)	Nonregulated %
1 Atmos Energy	ATO	\$ 4,347,634	\$ 1,729,513	39.78%
2 Laclede Group	LG	1,603,307	669,375	41.75%
3 New Jersey Resources	NJR	3,009,209	1,996,997	66.36%
4 Northwest Natural Gas	NWN	369,433	26,463	7.16%
5 Piedmont Natural Gas	PNY	1,433,905	-	0.00%
6 UGI Corp.	UGI	6,091,300	2,548,400	41.84%
7 WGL Holdings	WGL	2,751,501	1,486,921	54.04%
8				
9 Sample Average				<u>35.85%</u>

Source: Form 10-Ks filed with the SEC by ATO, LG, NJR, NWN, PNY, UGI and WGL, for the 2011 Fiscal Year.